Educational Robotic and Programming and Learning Scenarios

2020-1-PT01-KA201-078670

1st TPM – Portugal| Barreiro

19th, 20th november 2020

Partners

Zespol Szkol Nr1 im. prof. B. Krupinskiego

ERZIN MESLEKI VE TEKNIK ANADOLU LISESI

Liceo Classico e linguistico carmine sylos

Objectives

>Draw an educational policy framework to promote ERP@LC in the countries involved (Portugal, Italy, Turkey and Poland);

>Explore ERP@LC in the classroom context using, among others, 3D modelling, immersive environments, augmented and virtual reality, microcontrollers and sensors;

>Frame the EPR approach in teaching and learning theories, understanding the fundamentals for a full application;

>Create, implement and evaluate a teacher training course in three different modalities (f2f, blended and online);

Objectives

>Define a referential and inspiring set of good Practices that will allow teachers to implement ERP@LC;

>Create a set of metrics to evaluate both the integration of ERP@LC and the competence development;

>Propose guides for the definition of integration of ERP@LC in classroom context;

>Strengthen the link between schools, companies, professional associations of teachers and universities in a European dimension

How to achieve this

STAGE 1

The curricula of all subjects in the countries involved (PT, IT, TR, PL) that correspond to students of secondary education (ISCED 2-3) will be analysed to find references direct to indirect to a possible approach ERP@LC. In this way, a portrait will be drawn, which will be multidisciplinary one and will allow to find common aspects and identify possibilities to explore.

How to achieve this

STAGE 2

Based on the opportunities offered by the results of the previous study and taking advantage of the added value of each member that makes up this consortium, training will be designed for teachers who participate directly in the project. In this training, participants will be trainers at the same time when the topic to be addressed corresponds to their specific area. This training must be replicated in the schools of origin using a blended strategy (blended and online).

How to achieve this

STAGE 3

The evaluation made of the f2f training as well as the results of the replication will be the foundation of the construction of an eLearning course that allows the ERP@LC. Participants in this course, open and free, primarily will be teachers of the schools involved on the project but it is intended to expand the scope, opening the course to all teachers. Also, part of this training will be the creation and experimentation in the classroom context of ERP@LC.

How to achieve this

STAGE 4

The last action, collection, evaluation and dissemination of the best practices, will make available teacher stories and teaching cases in order to help teachers implement ERP@LC.

Tasks and responsibilities

Agrupamento de Escolas Augusto Cabrita (PT)

Project Coordinator: Budget control; Time management; monitoring the progress, quality and performance of project activities; evaluation; management of communication and cooperation in the consortium.

- 1st TPM, 4th TPM

- Responsible for financial management and reporting to the National Agency

- It will be responsible for all project components related to microcontrollers (Arduino) and sensors.

Tasks and responsibilities

Associação Nacional de Professores de Informática (PT)

- Coordination of The Dissemination and exploitation Panel.

- Organization of the 3rd TPM

- Responsible for the last Multiplier Event, ERP @ LC Final Conference.

- Coordination of IO5 - Policy Recommendations - Curriculum approaches to Educational Robotic and Programing according to national curriculum for secondary education (ISCED 2-3)

Tasks and responsibilities

Liceo Classico e linguistico carmine sylos (IT)

- Responsible for managing the Etwining Platform (among member schools of the consortium)

- It will be responsible for all project components related to to augmented reality and immersive environments;

-   Responsible for the first Multipler event, The ERP @ LC in the Curriculum.

-   Organization of the 2nd TPM

- It will be responsible for the Social Media component

Tasks and responsibilities

Zespol Szkol Nr1 im. prof. B. Krupinskiego (PL)

- Organization of 1st LTA

- Coordination of IO3 - Educational Robotic and Programming using learning scenarios for secondary education (ISCED 2-3) - Best Practices

- It will be responsible for all project components related to 3D modeling and printing;

- Coordination of the Quality Team and direct collaboration in the Dissemination and exploitation Panel.

- Creation and maintenance of the Youtube channel, ensuring that all EU regulations regarding copyright and intellectual property are followed.

Tasks and responsibilities

Erzin Mesleki Ve Teknik Anadolu LISESI (TR)

- Organization of 2nd LTA

- Coordination of IO1 - Curriculum approaches to Educational Robotic and Programing according to national curriculum for secondary education (ISCED 2-3) of Portugal, Poland, Turkey and Italy

- It will be responsible for all project components related with learning scenarios in specific subjects.

Tasks and responsibilities

Sucessos Criativos, Lda (PT)

- Website and elearning platform management

- Document repository management

- Responsible for creating the visual identity manual

- Responsible for developing the sustainability plan

- Responsible for developing the communication plan and project handbook

- Coordination of IO2- Educational Robotic and Programming using learn scenarios for secondary education (ISCED 2-3) - eLearning Course

Activities

- TPM

- LTA

- Multiplier Events

- Intellectual Outputs

- Management

- Dissemination

- Quality and Evaluation

Activities – TPM

1st TPM

M2 (October, 2020), Agrupamento de Escolas Augusto Cabrita (PT)
This one is blended: PT partners are f2f and the other are online.

2nd TPM

M13 (September, 2021), Liceo Classico e linguistico carmine sylos (IT)

3rh TPM

M19 (March, 2022), Associação Nacional de Professores de Informática (PT)

4th TPM

M32 (Abril, 2023), Agrupamento de Escolas Augusto Cabrita (PT)

Participants (2 teachers/members)

Activities – LTA

Short-term joint staff training events

1st LTA

M7 (December, 2020) Zespol Szkol Nr1 im. prof. B. Krupinskiego (PL)

2nd LTA

M7 (March, 2021) Erzin Mesleki Ve Teknik Anadolu LISESI (TR)

Participants (2 teachers/members)

Activities – LTA

> New schedule to be decided in February – according with the pandemic evolution

> 1st and 2nd LTA must be sequencial and before the elearning course (IO2)

> Proposal

       1st LTA – Abril|May

       2nd LTA – May|June

Activities – LTA

1st LTA *EPR foundations and Hands-on: 3D Printing and Arduino*

WK 1 - 3D Modeling and Printing by Zespol Szkol Nr1 (PL)

WK 2 - Arduino and Sensors Augusto Cabrita School Group (PT

WK3 - Session with the Associate Partner from Poland (KGHM Polska Miedz)

Full program – as in the application form (on drive)

Activities – LTA

2nd LTA *Learning Scenarios - From concept to Practice*

WK 1 - Virtual Reality, Liceo Classico and linguistic carmine sylos (IT)

WK 2 - Sharing two experiences using ERP @ LC

WK3 - Session with the Associate Partner from Turkey (YASA Technology Inc)

Full program – as in the application form (on drive)

Activities – Multiplier Events

> 2 Multiplier events (ME)

1st ME (September, 2021) - New schedule to be decided, according with the pandemic evolution

Liceo Classico e linguistico carmine sylos (IT)

Participants – 50 local+10 internacional

2nd ME (April, 2023)

Associação Nactional de Professores de Informática (PT)

Participants – 200 local+15 internacional

Budget

100 EUR per local participant

200 EUR per international participant

Activities – Intellectual Outputs

Definition

Intellectual outputs (IO) are tangible deliverables of the project (such as curricula, pedagogical and youth work materials, open educational resources (OER), IT tools, analyses, studies, peer-learning methods, etc.)

Activities – Intellectual Outputs

IO1 (Leader: ERZIN MESLEKI VE TEKNIK ANADOLU LISESI (TR)

Curriculum approaches to Educational Robotic and Programing according to national curricula for secondary education (ISCED 2-3) of Portugal, Poland, Turkey and Italy

IO2 (Leader: Sucessos Criativos, Lda (PT)

Educational Robotic and Programming using learn scenarios for secondary education (ISCED 2-3) – eLearning Course

IO3 (Leader: Zespol Szkol Nr1 im. prof. B. Krupinskiego (PL)

Educational Robotic and Programming using learning scenarios for secondary education (ISCED 2-3) – Best Practices

IO4 (Leader: Associação Nacional de Professores de Informática (, PT)

Policy Recommendations - Curriculum approaches to Educational Robotic and Programing according to national curricula for secondary education (ISCED 2-3)

Activities – Intellectual Outputs

Payed per working day

Tables of cost (defined by EU)

    Portugal – WD 137€

    Italy – WD 214€

    Poland – WD 74€

    Turkey – WD 74€

Activities – Intellectual Outputs

IO1 (Leader: ERZIN MESLEKI VE TEKNIK ANADOLU LISESI (TR)

Curriculum approaches to Educational Robotic and Programing according to national curricula for secondary education (ISCED 2-3) of Portugal, Poland, Turkey and Italy.

> Date to be completed – December 2020 (as in the application form)
> Proposal:
    New deadline to be complete – February 2021

Activities – Intellectual Outputs

ISCED 2: Lower secondary education

Programmes at this level are typically designed to build on the learning outcomes from ISCED level 1. Students enter ISCED level 2 typically between ages 10 and 13 (age 12 being the most common).

ISCED 3: Upper secondary education

Programmes at this level are typically designed to complete secondary education in preparation for tertiary education or provide skills relevant to employment, or both. Students enter this level typically between ages 14 and 16.

In http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf

Portugal The Structure of the Education System (ISCED 2-3)

Portugal

Age of students

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

Creche

Jardim de infância

1.º ciclo
(Ensino básico)

2.º ciclo

3.º ciclo
(Ensino básico)

(Ensino secundário)
(Cursos científico-humanísticos)
Escolas Secundárias

Agrupamentos de Escolas

(Cursos artísticos especializados)
Escolas Artísticas/Escolas Secundárias/Agrupamentos de Escolas

(Cursos profissionais)
Escolas Profissionais/Escolas Secundárias/Agrupamentos de Escolas

(Cursos de especialização tecnológica)
Escolas Secundárias/Centros de Formação Profissional

ISCED 2   ISCED 3

Secondary general education   Secondary vocational education

Adapted from https://op.europa.eu/en/publication-detail/-/publication/f4784939-1f15-11eb-b57e-01aa75ed71a1/language-en/format-PDF/source-search

Poland The Structure of the Education System (ISCED 2-3)

Poland

Age of students

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

Żłobek /
Klub dziecięcy

Przedszkole /
Oddział przedszkolny
w szkole podstawowej /
Punkt przedszkolny /
Zespół wychowania
przedszkolnego

Szkoła podstawowa

→| 2022
Liceum ogólnokształcące

→| 2023
Technikum

→| 2022
Branżowa szkoła I stopnia

→| 2024
Branżowa szkoła II stopnia

ISCED 2   ISCED 3

Single structure   Secondary vocational education   Secondary general education

Szkoły policealne

Adapted from https://op.europa.eu/en/publication-detail/-/publication/f4784939-1f15-11eb-b57e-01aa75ed71a1/language-en/format-PDF/source-search

Italy The Structure of the Education System (ISCED 2-3)

Italy

Age of students

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

Nido d'infanzia

Scuola dell'infanzia

Scuola primaria

Scuola secondaria di primo grado

Liceo

Istituto tecnico / Istituto professionale

(Istruzione e formazione professionale - IFP)

(Istruzione e formazione tecnica superiore - IFTS)

Note: *Nido d'infanzia* is marked as ISCED 0 on the basis of the law 107/2015, implemented from school year 2017/18.
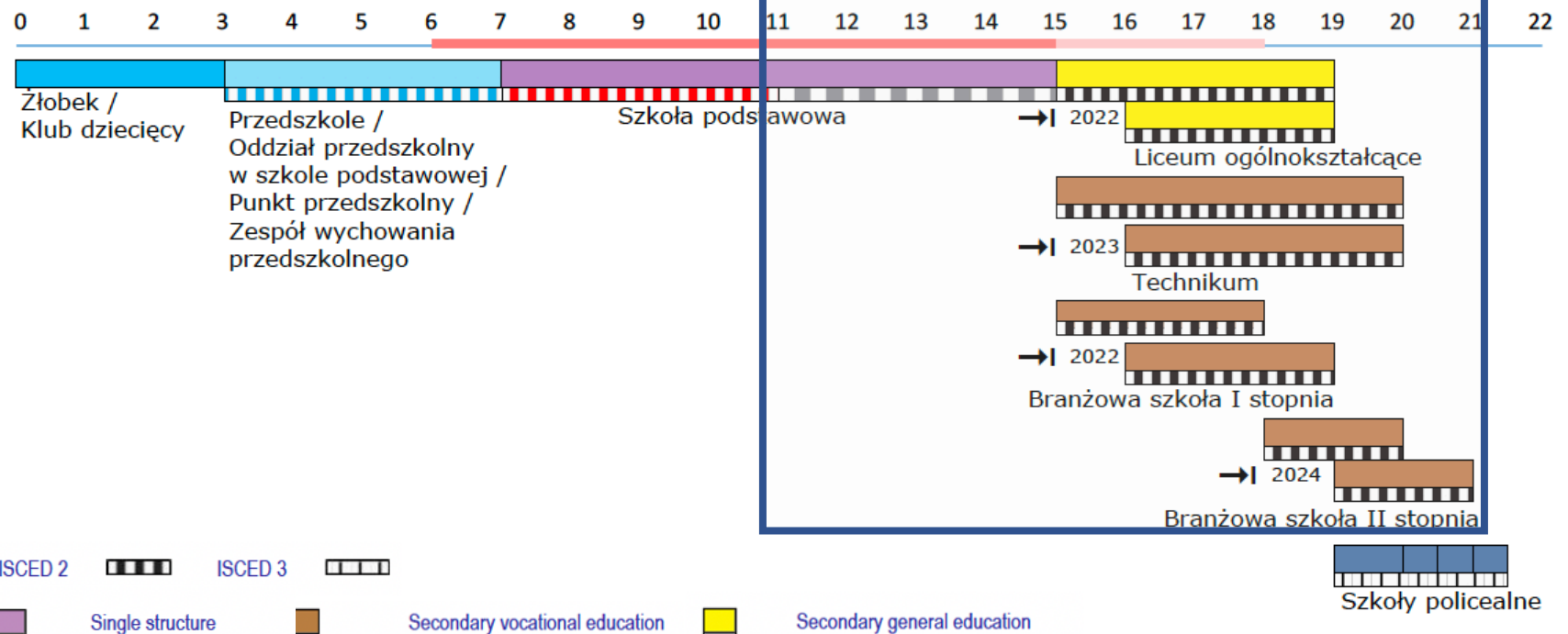
ISCED 2   ISCED 3

Secondary general education   Secondary vocational education

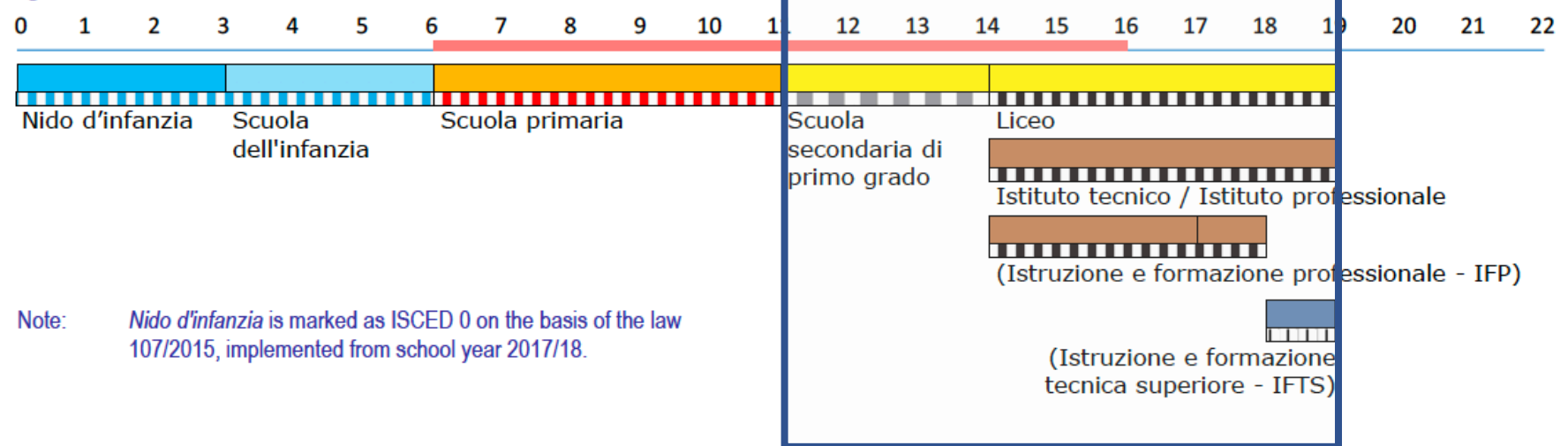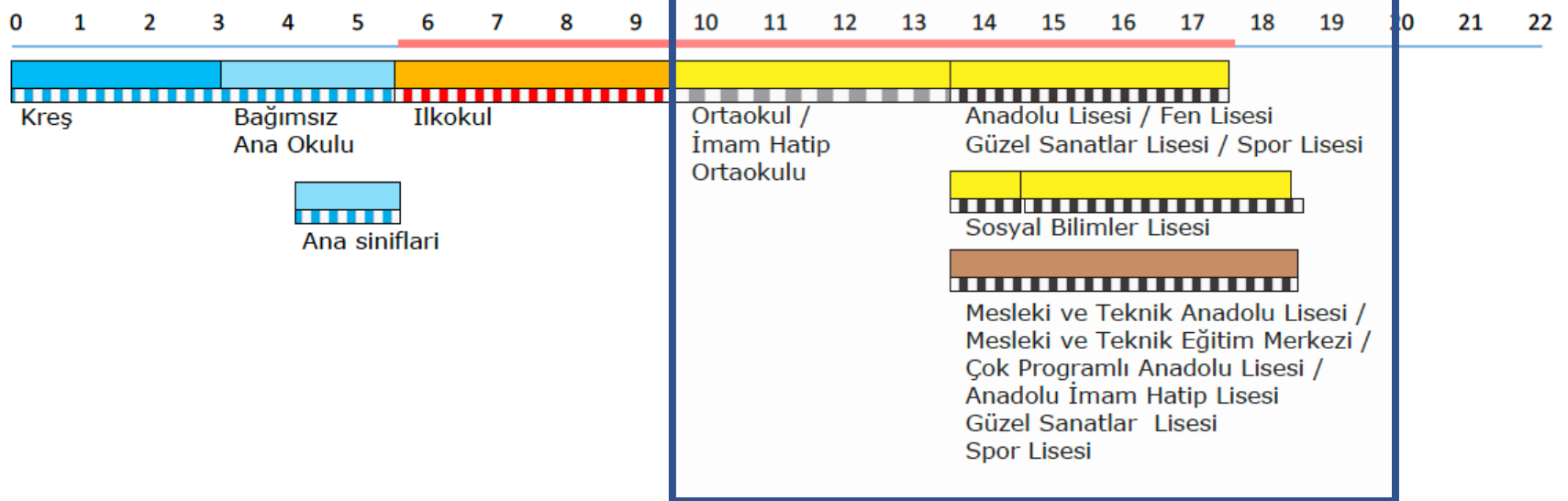# Turkey The Structure of the Education System (ISCED 2-3)

Turkey

Age of students

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

Kreş

Bağımsız
Ana Okulu

Ilkokul

Ana siniflari

Ortaokul /
İmam Hatip
Ortaokulu

Anadolu Lisesi / Fen Lisesi
Güzel Sanatlar Lisesi / Spor Lisesi

Sosyal Bilimler Lisesi

Mesleki ve Teknik Anadolu Lisesi /
Mesleki ve Teknik Eğitim Merkezi /
Çok Programlı Anadolu Lisesi /
Anadolu İmam Hatip Lisesi
Güzel Sanatlar Lisesi
Spor Lisesi

ISCED 2   ISCED 3

Secondary general education   Secondary vocational education

Activities – Intellectual Outputs

IO1.1 Definition of the methodology to be used in the study and establishment of the protocol

Regarding the sources of information, the information contained in the websites of the national authorities / regions of education of the member country of the consortium will be used.

Since the documents to be analyzed will have a different structure, a protocol will be created for the identification and registration of the information to be collected, in order to make comparisons possible.

Responsible: Sucessos Criativos, Lda.

Activities – Intellectual Outputs

IO1.1 Definition of the methodology to be used in the study and establishment of the protocol

Responsible: Sucessos Criativos, Lda.

> Layout of the report **(To be done until the 15th January)**

> Protocol to colect the information (DONE)

Activities – Intellectual Outputs

IO1.2 Global characterization of the educational system in the countries of the consortium members (PT, PL, TR and IT)

Using official documents from each country, as well as Eurydice (Information Network on Education in Europe), information on the education system of each country should be collected, according to the protocol defined in the previous phase.

This task will be carried out by the member schools of the consortium

(Proposal: to be done until the 15th December)

Activities – Intellectual Outputs

IO1.2 Global characterization of the educational system in the countries of the consortium members (PT, PL, TR and IT)

Each school should make a global characterization of the educacional system:

- Key features of the education system
- Stages of the education system
- Pre-school education
- **Basic education**
- **Upper secondary education**
- Higher education
- Adult education and training
- Structure of the national education system

Source: Euridyce
Focus on
  - **Basic education**
  - **Upper secondary education**

. Education in Numbers (table in drive
https://docs.google.com/spreadsheets/d/1JL6neOPJpmoxFWuaHWWmVYdXIoEJHU3o2_GkzNAUMkg/edit?usp=sharing
(probably you will find it in nacional documents)

https://eacea.ec.europa.eu/national-policies/eurydice/content/portugal_en

Activities – Intellectual Outputs

IO1.3 Identify the Curriculum approaches to Educational Robotic and Programing according to national curricula

Each school should collect approaches to ERP in their curriculum, considering all subjects. Following a methodology similar to that used for Eurydice in the elaboration of the report in Digital Education at School in Europe (2020) it will be also identified ERP a cross-curricular theme; as a separate subject and integrated into other subjects.

This task will be carried out by the member schools of the consortium

(Proposal: to be done until the 15th January)

Activities – Intellectual Outputs

IO1.3 Identify the Curriculum approaches to Educational Robotic and Programing according to national curricula

Each school should collect approaches to ERP in ALL SUBJECTS (ISCED 2-3).

Protocol proposal:

https://forms.gle/QubZzQ4RJr11kfSEA

Activities – Intellectual Outputs

IO1.4 Reporting

The preparation of a document containing the work developed in the previous points will be the responsibility of the schools of the consortium, always bearing in mind the lines defined in IO 1.1.

This task will be carried out by the member schools of the consortium

> This version must be in English

(Proposal: to be done until the 30th January)

Activities – Intellectual Outputs

IO1.5 Reviewing, Translating and Publishing

All members of the consortium will contribute to the document review process, with special involvement from ANPRI (PT) and Sucessos Criativos, Lda (PT). The fact that they did not participate in the elaboration phase allows the necessary distance for a more quality review. It also highlights the role of Associate partners operating in the Higher Education sector - ESELX (PT) and Wroclaw University of Science and Technology (PL) - in the sense of collaborating in this scientific review process. After this process, the schools members of the Consortitum will translate the document.

(Proposal: to be done until the 15th February)

Activities – Going on...

- Video presenting the school/organization (<3 minutes)
  *until the 20 of december

- Identify the working teams in each country
  Name, Photo, area, email
  Role in the project
  Small profile (2 or 3 sentences)
  * until the 7th of December (there is a template on Drive)

- eTwinning - Liceo Classico e linguistico carmine sylos (IT)
  * Setting up the project
  * Creating a padlet for teachers and students
  * Asking for contributions – only for schools!
  *until the 7th of December

Activities - Going on...

> Webpage (Sucessos Criativos, Lda)

  *Domain: http://epr-lc.eu

  * hosting already acquired

  * It will be updated until the 20th of december – need all the inputs

> Social Media (Zespol Szkol Nr1 im. prof. B. Krupinskiego (PL)

  Setting up a facebook/Instagram

  *until the 7th of December

> Teaser video

  *Each partner should make at least one video about theirs expectation on this project (teachers or school leaders)

  * <3 minutes, landscape - Sucessos Criativos, Lda will deal the final layout

  until the 15th of december please send to fatima.pais@sucessos-criativos.pt (wetransfer or similar)

Activities - Management

Project Management Handbook , Communication plan and Visual identity

Responsible: Sucessos Criativos, Lda.

(Proposal: to be done until the 15th December)

Quality Team (QT)

The quality management team oversees the quality of all tasks performed during the project, in accordance with the quality plan and the quality assurance plan. It will also be responsible for the evaluation of the project itself, of all activities as well as the production and validation of the instruments used. This team will be Coordinated by Zespol Szkol Nr1 im. prof. B. Krupinskiego (PL) and will meet online ordinarily in a monthly basis.

Quality Assurance Plan (Proposal: first draft to be done until the 15th February)

Activities - Management

The Dissemination and exploitation Panel (DEP)

The DEP will support the Steering Committee in their communication and dissemination of the project results at the national, European and international level. This Panel will be coordinated by ANPRI (PT). The periodicity of the DEP meetings will follow a phase out distribution, becoming more intense as results are produced. The firs activity of this team will be to detail the dissemination plan.

Dissemination Plan (Proposal: first draft to be done until the 15th February)

Activities - Management

Financial Management

> The Consortium has to provide the EU Commission, through the Coordinator, with full information on the implementation of the project.

> A contract ti be signed shall regulate relations between the parties, and their respective rights and obligations with regard to their participation in the project.

> On the 3rd December, Portuguese NA will held a meeting to clarify all the financial issues.

After that the partnership agreement will be signed

probably there will be no money transfers before the end of 2020!

Activities - Management

Shared Folder – Google Drive

https://drive.google.com/drive/folders/1PEVA-uusI6X0kuCuQ8VbW80c2pNJQUbu

By January on the webpage there will be platform to manage the project.
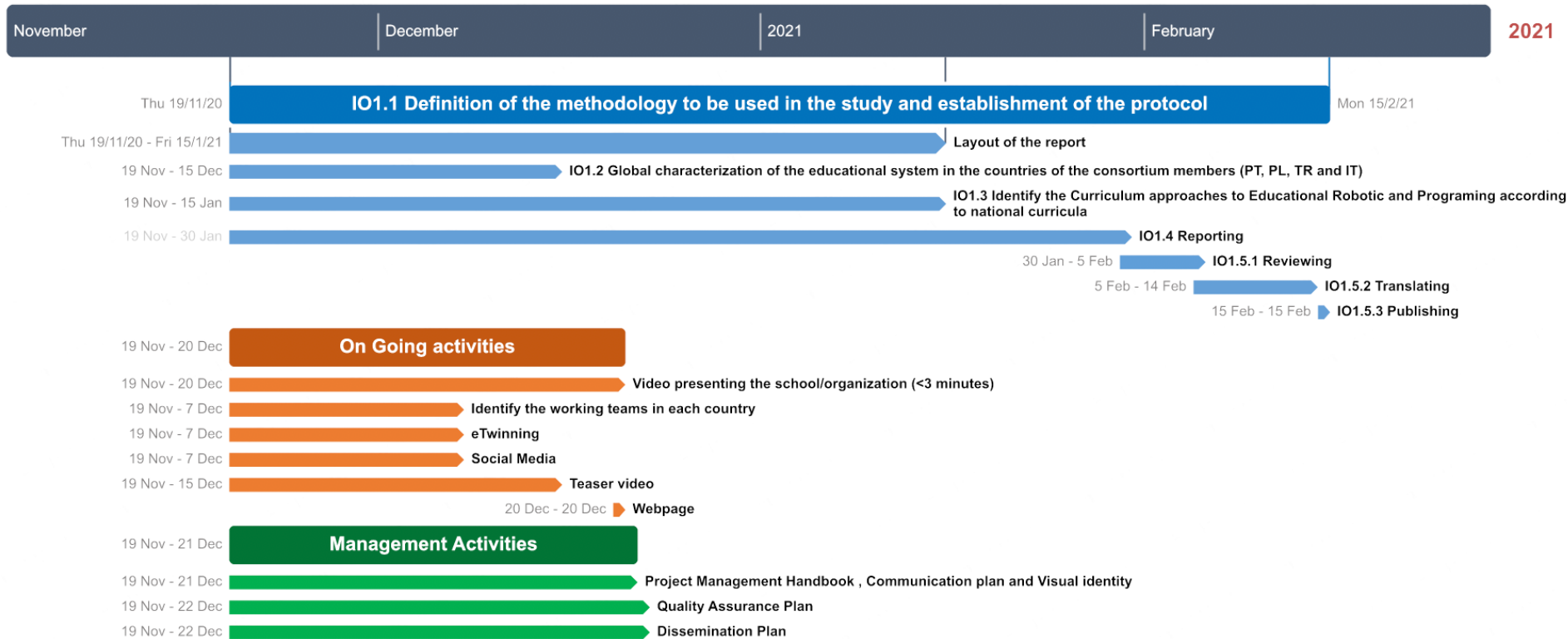
Activities - Dissemination

> Spread the word...

      * Meetings at school/organizations

      * Facebook Post (each parter)

      * Webpage (each partner)

      *Local/national media

PrintScreens, photos and links on Drive of ALL the activities

Detailed plan (6 months)

epri_ls

	November	December	2021	February	**2021**

Thu 19/11/20 — IO1.1 Definition of the methodology to be used in the study and establishment of the protocol — Mon 15/2/21

Thu 19/11/20 - Fri 15/1/21 — Layout of the report

19 Nov - 15 Dec — IO1.2 Global characterization of the educational system in the countries of the consortium members (PT, PL, TR and IT)

19 Nov - 15 Jan — IO1.3 Identify the Curriculum approaches to Educational Robotic and Programing according to national curricula

19 Nov - 30 Jan — IO1.4 Reporting

30 Jan - 5 Feb — IO1.5.1 Reviewing

5 Feb - 14 Feb — IO1.5.2 Translating

15 Feb - 15 Feb — IO1.5.3 Publishing

19 Nov - 20 Dec — On Going activities

19 Nov - 20 Dec — Video presenting the school/organization (<3 minutes)

19 Nov - 7 Dec — Identify the working teams in each country

19 Nov - 7 Dec — eTwinning

19 Nov - 7 Dec — Social Media

19 Nov - 15 Dec — Teaser video

20 Dec - 20 Dec — Webpage

19 Nov - 21 Dec — Management Activities

19 Nov - 21 Dec — Project Management Handbook , Communication plan and Visual identity

19 Nov - 22 Dec — Quality Assurance Plan

19 Nov - 22 Dec — Dissemination Plan

Questions?